

METHOD OF MANUFACTURING SEMICONDUCTOR DEVICES

ABSTRACT OF THE DISCLOSURE

5 The present invention relates to a method of manufacturing a semiconductor device. The present invention sequentially forms a DCS HTO film and a nitride film on the entire structure after a self align source etch process so that so that they can serve as a spacer for compensating for the sidewall of a gate structure damaged upon the self align source etch process.

10 Therefore, the present invention can increase the integrity capability of data by preventing movement of charges and holes between a floating gate electrode and peripheral circuits and can mitigate a stress due to the nitride film in a subsequent process. Further, the present invention can prevent increase of the thickness of the dielectric film between a first polysilicon silicon layer and
15 a second polysilicon layer in a subsequent annealing process and can secure the uniformity of a screen oxide film to make uniform the depth of the junction upon a high concentration ion implantation process. In addition, the present invention can improve the characteristic of transistors in the peripheral circuit and improve the uniformity of the diffusion resistance value.